

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

IN RE:

INTEL CORP. MICROPROCESSOR
ANTITRUST LITIGATION

MDL Docket No. 05-MD-1717-JJF

PHIL PAUL, on behalf of himself and all
others similarly situated,

Plaintiffs,

Civil Action No. 05-485-JJF

v.

CONSOLIDATED ACTION

INTEL CORPORATION,

Defendant.

CONSOLIDATED COMPLAINT

James L. Holzman (DE Bar # 663)
J. Clayton Athey (DE Bar #4378)
Eric M. Anderson (DE Bar#4376)
PRICKETT, JONES & ELLIOTT, P.A.
1310 King Street
Wilmington, DE 19801
(302) 888-6500
jholzman@prickett.com
jcathey@prickett.com
emanderson@prickett.com

Michael D. Hausfeld
Daniel A. Small
Brent W. Landau
Allyson B. Baker
COHEN, MILSTEIN, HAUSFELD & TOLL, P.L.L.C.
1100 New York Avenue, NW
Suite 500, West Tower
Washington, DC 20005
mhausfeld@cmht.com dsmall@cmht.com
blandau@cmht.com abaker@cmht.com

Michael P. Lehmann
Thomas P. Dove
Alex C. Turan
THE FURTH FIRM, LLP
225 Bush Street, 15th Floor
San Francisco, CA 94104
mplehmann@furth.com
tdove@furth.com
aturan@furth.com

Steve W. Berman
Anthony Shapiro
Craig R. Spiegel
HAGENS BERMAN SOBOL SHAPIRO, LLP
1301 Fifth Avenue, Suite 2900
Seattle, WA 98101
steve@hbsslaw.com
tony@hbsslaw.com
craig@hbsslaw.com

Guido Saveri
R. Alexander Saveri
SAVERI & SAVERI, INC.
111 Pine Street, Suite 1700
San Francisco, CA 94111
guido@saveri.com
rick@saveri.com
Co-Lead and Interim Counsel for Plaintiffs

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Plaintiffs, by and through their counsel, on behalf of themselves and all others similarly situated, bring this action against Intel Corporation (“Intel”) for damages and injunctive relief, and demand trial by jury. In this Consolidated Complaint (“Complaint”), Plaintiffs allege:

I. NATURE OF THE ACTION

1. Intel holds a monopoly in a market critical to our economy: microprocessors that run the Microsoft Windows and Linux families of operating systems (the “x86 Microprocessor Market”). Intel dominates the x86 Microprocessor Market, with a market share greater than 80 percent measured by unit volume and greater than 90 percent measured by revenue. It has engaged in a series of anticompetitive acts that were designed to, and did, stifle and eliminate competition in, and prevent entry into, the x86 Microprocessor Market. These anticompetitive acts have foreclosed consumer choice and allowed Intel to charge inflated prices for its products.

2. For over a decade Intel has unlawfully maintained its monopoly by engaging in a relentless, worldwide campaign to coerce customers to refrain from dealing with Intel’s major competitor, Advanced Micro Devices, Inc. (“AMD”), or with any other actual or potential competitors. Among other things:

- Intel has forced major customers into exclusive or near-exclusive deals.
- Intel has conditioned rebates, allowances and market development funding on customers’ agreement to severely limit or forgo entirely purchases from AMD or other competitors.
- Intel has established a system of discriminatory, retroactive, first-dollar rebates triggered by purchases at such high levels as to have the practical and intended effect of denying customers the freedom to purchase any significant volume of processors from AMD and others.
- Intel has threatened retaliation against customers introducing AMD computer platforms, particularly in strategic market segments.

- Intel has established and enforced quotas with key retailers, effectively requiring them to stock overwhelmingly, if not exclusively, Intel-powered computers, thereby artificially limiting consumer choice.
- Intel has forced PC makers and technology partners to boycott AMD product launches and promotions.
- Intel has abused its market power by forcing on the industry technical standards that have as their central purpose the handicapping of AMD and others in the marketplace.

3. Intel's economic coercion of customers extends to all levels – from large computer-makers like Hewlett-Packard and IBM to small system-builders to wholesale distributors to retailers such as Circuit City. All face the same choice: accept conditions that exclude AMD's and others' products or suffer discriminatory pricing and competitively crippling treatment. In this way, Intel has avoided fair competition and precluded AMD and others of the opportunity to stake their prices and quality against Intel's for every potential microprocessor sale and thus has damaged purchasers of microprocessors and computers by eliminating competition both as to quality and price.

4. Intel's conduct has become increasingly egregious over the past several years as AMD has achieved technological leadership in critical aspects of microprocessor architecture. In April 2003, AMD introduced its Opteron microprocessor, the first microprocessor to take x86 computing from 32 bits to 64 bits – an advance that allows computer applications to address exponentially more memory, thereby increasing performance and enabling features not possible with just 32 bits. Unlike Intel's 64-bit architecture of the time (Itanium), the AMD Opteron and its subsequently-introduced desktop cousin, the AMD Athlon64, offer backward compatibility, allowing PC users to continue using 32-bit software as they upgrade their hardware. Bested in a technology duel as to which it long claimed leadership, and subject to losing market share and price control, Intel increased exploitation of its market power to pressure customers to refrain from migrating to AMD's superior, lower-cost microprocessors.

5. Intel's conduct has unfairly and artificially capped AMD's and others' market shares, and it has constrained AMD and others from expanding to reach the minimum efficient levels of scale necessary to compete with Intel as a predominant supplier to major customers. As a result, computer manufacturers continue to buy most of their requirements from Intel, continue to pay monopoly prices, continue to be exposed to Intel's economic coercion, and continue to submit to artificial limits Intel places on their purchases from AMD and others. With AMD's and others' opportunity to compete thus constrained, the cycle continues, and Intel's monopoly profits continue to flow.

6. Consumers ultimately foot this bill, in the form of inflated PC prices and the loss of freedom to purchase computer products that best fit their needs. Society is worse off for lack of innovation that only a truly competitive market can drive. The Japanese Government recognized these competitive harms when on March 8, 2005, its Fair Trade Commission (the "JFTC") recommended that Intel be sanctioned for its exclusionary misconduct directed at its competitors. Intel chose not to contest the charges.

7. Plaintiffs, on their own behalf and on behalf of the class defined below, seek to recover for the injuries to their businesses or property resulting from Intel's unlawful conduct. Plaintiffs also seek injunctive relief and costs, including reasonable attorneys' fees.

II. JURISDICTION AND VENUE

8. The Court has subject matter jurisdiction under 28 U.S.C. § 1331 (federal question) and 28 U.S.C. § 1337 (commerce and antitrust regulation), as this action arises under Section 2 of the Sherman Act, 15 U.S.C. § 2, and Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15(a) and 26. The Court has supplemental subject matter jurisdiction of the pendent state law claims under 28 U.S.C. § 1367. The Court also has jurisdiction over this matter pursuant to 28 U.S.C. § 1332(d), in that this is a class action in which the matter or controversy exceeds the sum of \$5,000,000, exclusive of interest and costs, and in which some members of the proposed class are citizens of a state different from Intel.

9. Venue is proper because Intel Corporation resides, is found, has agents and transacts business in this district as provided in 28 U.S.C. § 1391(b) and (c) and in Sections 4 and 12 of the Clayton Act, 15 U.S.C. §§ 15 and 22.

III. PARTIES

10. Within four years preceding June 28, 2005, each plaintiff purchased, in the United States and not for resale, one or more Intel x86 microprocessors or computers with Intel x86 microprocessors and suffered injury as a result of Intel's illegal conduct described in this Complaint.

11. Plaintiff Benjamin J. Allanoff is a resident of Topanga, California.
12. Plaintiff Raphael Allison is a resident of Brooklyn, New York.
13. Plaintiff Christian Ambruso is a resident of New York, New York
14. Plaintiff David Arnold is a resident of Coral Gables, Florida.
15. Plaintiff Elizabeth Bruderle Baran is a resident of the County of Milwaukee, Wisconsin.
16. Plaintiff Susan Baxley is a resident of Roseville, California.
17. Plaintiff Phillip Boeding is a resident of New York, New York
18. Plaintiff Michael Brauch is a resident of San Francisco, California.
19. Plaintiff Ludy Chacon is a resident of Pompano Beach Florida.
20. Plaintiff Joseph Samuel Cone is a resident of Greensboro, North Carolina.
21. Plaintiff Carrol Cowan is a resident of the District of Columbia.
22. Plaintiff William F. Cronin is a resident of Dallas, Texas.
23. Plaintiff Paul C. Czysz is a resident of the County of Somerset, New Jersey.
24. Plaintiff Russell Dennis is a resident of Chittenden County, Vermont.
25. Plaintiff Dwight E. Dickerson is a resident of Oakland, California.
26. Plaintiff Damon DiMarco is a resident of the State of New York.
27. Plaintiff Gideon Elliott is a resident of the County of Santa Fe, New Mexico.
28. Plaintiff Jerome Feitelberg is a resident of Alameda, California.

29. Plaintiffs Huston Frazier and Jeanne Cook Frazier are residents of Napa County, California.
30. Plaintiff Angel Genese is a resident of the County of Passaic, New Jersey.
31. Plaintiff Cheryl Glick-Salpeter is a resident of Glen Cove, New York.
32. Plaintiff Nir Goldman is a resident of the County of Alameda, California.
33. Plaintiff Steven J. Hamilton is a resident of Sumner, Washington.
34. Plaintiff Gabriella Herroeder-Perras is a resident of Vista, California.
35. Plaintiff Patrick J. Hewson is a resident of Carbondale, Illinois.
36. Plaintiff Karol Juskiewicz is a resident of Fairfield, California.
37. Plaintiff Ronald Konieczka is a resident of Cincinnati, Ohio.
38. Plaintiff Henry Kornegay is a resident of Billings, Montana.
39. Plaintiff Matthew Kravitz is a resident of Wilmington, Delaware.
40. Plaintiff Lawrence Lang is a resident of Tiburon, California.
41. Plaintiff David E. Lipton is a resident of Richmond, California.
42. Plaintiff Leonard Lorenzo is a resident of Hillsborough County, Florida.
43. Plaintiff Andrew Meimes is a resident of New York City, New York.
44. Plaintiff Stuart Munson is a resident of Petaluma, California.
45. Plaintiff Peter Jon Naigow is a resident of Brown Deer, Wisconsin.
46. Plaintiff Patricia M. Niehaus is a resident of Ft. Mitchell, Kentucky.
47. Plaintiff Phil Paul is a resident of Cherry Hill, New Jersey.
48. Plaintiff Lee Pines is a resident of Highland, Michigan.
49. Plaintiff Maria I. Prohias is a resident of, Miami, Florida.
50. Plaintiff Paul Ramos is a resident of Miami, Florida.
51. Plaintiff Michael Ruccolo is a resident of Palm Beach Gardens, Florida.
52. Plaintiff Darice Russ is a resident of Milwaukee, Wisconsin.

53. Plaintiff Jodi Salpeter is a resident of Whitestone, New York. Jay Salpeter, father of Jodi, is a resident of Glen Cove, New York, and paid for the laptop computer purchased by Jodi.

54. Plaintiff Stuart Schupler is a resident of Somers Point, New Jersey.

55. Plaintiff Nathaniel Schwartz is a resident of Miami, Florida.

56. Plaintiff Michael K. Simon is a resident of Rydal, Pennsylvania.

57. Plaintiff Francis H. Slattery, IV, is a resident of Audobon, New Jersey.

58. Plaintiff Kevin Stoltz is a resident of Mukilteo, Washington.

59. Plaintiff Dana F. Thibedeau is a resident of Middleton, Massachusetts.

60. Plaintiff Ian Walker is a resident of the County of San Francisco, California.

61. Plaintiff Robin S. Weeth is a resident of La Crosse, Wisconsin.

62. Plaintiff Brian Weiner is a resident of New York, New York.

63. Plaintiff Bergerson & Associates, Inc. is a Minnesota company with its principal place of business in Burnsville, Minnesota.

64. Plaintiff Fairmont Orthopedics & Sports Medicine, P.A. has its place of business in Fairmont, Minnesota.

65. Plaintiff HP Consulting Services, Inc. has its place of business in West Palm Beach, Florida.

66. Plaintiff Law Offices of Kwasi Asiedu is located in Torrance, California.

67. Plaintiff Law Offices of Laurel Stanley is a California business entity located in Oakland, California.

68. Plaintiff Rob Marshall, dba Marshall Realty has its principal place of business in San Bruno, California.

69. Plaintiff Melinda Harr, D.D.S., P.C. has its place of business in Fargo, North Dakota.

70. Plaintiff The Harman Press is a business located in Los Angeles, California.

71. Plaintiff Trotter-Vogel Realty, Inc. dba Prudential California Realty is an independently owned and operated member of Prudential Real Estate Affiliates, Inc., with its principal place of business in San Bruno, California.

IV. CLASS ALLEGATIONS

72. Plaintiffs bring this action under Federal Rule of Civil Procedure 23(b)(2) and 23(b)(3) on their own behalf and on behalf of the following class (the "Class"):

All persons and entities residing in the United States who from June 28, 2001 through the present, purchased an x86 microprocessor in the United States, other than for resale, indirectly from the Defendant or any controlled subsidiary or affiliate of Defendant. The Class excludes the Defendant; the officers, directors or employees of the Defendant; and any subsidiary, affiliate or other entity in which Defendant has a controlling interest. The Class also excludes all federal, state or local governmental entities, all judicial officers presiding over this action and their immediate family members and staff, and any juror assigned to this action.

73. In the event California law is not applied to the claims of all Class members for damages regardless of where they reside, Plaintiffs will seek certification of the following subclass ("Subclass") under Rule 23(b)(3) for damages, in addition to certification of the Class under Rule 23(b)(2) for purposes of injunctive relief:

All persons and entities residing in the United States who from June 28, 2001 through the present, purchased an x86 microprocessor in one of the Included States, other than for resale, indirectly from the Defendant or any controlled subsidiary or affiliate of Defendant. The Class excludes the Defendant; the officers, directors or employees of the Defendant; and any subsidiary, affiliate or other entity in which Defendant has a controlling interest. The Class also excludes all federal, state or local governmental entities, all judicial officers presiding over this action and their immediate family members and staff, and any juror assigned to this action.

74. For purposes of the Subclass, the "Included States" are Alaska, Arizona, Arkansas, California, the District of Columbia, Florida, Georgia, Idaho, Iowa, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Rhode Island, South Dakota, Tennessee, Utah, Vermont, West Virginia, and Wisconsin.

75. Plaintiffs do not know the exact number of Class members because that information is in the exclusive control of Intel and third parties. However, due to the nature of the trade and commerce involved, Plaintiffs believe that the Class members number in the thousands and are geographically diverse so that joinder of all Class members is impracticable. Fed. R. Civ. P. 23(a)(1).

76. There are questions of law and fact common to the Class, including but not limited to the following:

- a. whether Intel has possessed monopoly power in the relevant market since at least June 28, 2001;
- b. whether Intel acquired or maintained monopoly power within the relevant market through anticompetitive activity;
- c. whether Intel's unlawful conduct has caused injury to the businesses or property of Plaintiffs and the Class by enabling Intel to increase, maintain, or stabilize above competitive levels the prices that Plaintiffs and Class members have paid for x86 microprocessors, and if so, the appropriate class-wide measure of damages;
- d. whether Intel violated Section 2 of the Sherman Act;
- e. whether Intel violated Sections 16720 and 17200 of the California Business and Professions Code; and
- f. whether Intel violated the antitrust, unfair competition, consumer protection laws and unjust enrichment laws as alleged below.

77. These common questions and others predominate over questions, if any, that affect only individual Class members. Fed. R. Civ. P. 23(a)(2) and 23(b)(3).

78. Plaintiffs' claims are typical of, and not antagonistic to, the claims of the other Class members. By advancing their claims, Plaintiffs will also advance the claims of all Class members, because Intel participated in activity that caused all Class members to suffer similar injuries. Fed. R. Civ. P. 23(a)(3).

79. Plaintiffs and their counsel will fairly and adequately protect the interests of absent Class members. There are no material conflicts between Plaintiffs' claims and those of absent Class members that would make class certification inappropriate. Counsel for Plaintiffs

are experienced in complex class action litigation, including antitrust litigation, and will vigorously assert Plaintiffs' claims and those of absent Class members. Fed. R. Civ. P. 23(a)(4).

80. Intel has acted or refused to act on grounds generally applicable to the Class, thereby making appropriate final injunctive relief or corresponding declaratory relief with respect to the Class as a whole. Fed. R. Civ. P. 23(b)(2).

81. A class action is superior to other methods for the fair and efficient resolution of this controversy. The class action device presents fewer management difficulties, and provides the benefit of a single adjudication, economy of scale, and comprehensive supervision by a single court. Fed. R. Civ. P. 23(b)(3). The damages suffered by each Plaintiff and Class member are relatively small, given the expense and burden of individual prosecution of the claims asserted in this litigation. Thus, absent class certification, it would not be feasible for Plaintiffs and Class members to redress the wrongs done to them. Even if Plaintiffs and the Class members could afford individual litigation, which is not the case, the court system could not. Further, individual litigation presents the potential for inconsistent or contradictory judgments and would greatly magnify the delay and expense to all parties and to the court system. Therefore, the class action device presents far fewer case management difficulties and will provide the benefits of unitary adjudication, economy of scale and comprehensive supervision by a single court.

V. FACTUAL BACKGROUND

A. Early History

82. The brain of every computer is a general-purpose microprocessor, an integrated circuit capable of executing a menu of instructions and performing requested mathematical computations at very high speed. A microprocessor is defined by its instruction set – the repertoire of machine language instructions that a computer can follow. So, too, are computer operating systems, which are software programs that perform the instructions in the set allowing the computer to perform meaningful tasks. The first generation of microprocessors, which were capable of handling 4 bits and later 8 bits of data simultaneously, evolved to provide 16-bit

capability (the original DOS processors), then 32-bit capability (allowing the use of advanced graphical interfaces such as later versions of Windows), and now 64-bit capability.

83. When IBM defined the original PC standards in the early 1980s, it had available to it a variety of microprocessors, each with its own instruction set. Among these were microprocessors developed by Motorola, Zilog, National Semiconductor, Fairchild, Intel and AMD. IBM opted for the Intel architecture, which utilized what became known as the x86 instruction set (after Intel's naming convention for its processors, *i.e.*, 8086, 80186, 80286, 80386), and a compatible operating system offered by Microsoft, known as DOS. Unwilling to be consigned to a single source of supply, however, IBM demanded that Intel contract with another integrated circuit company and license it to manufacture x86 chips as a second source. (Microprocessors are also known as chips.) AMD, which had worked with Intel before in supplying microprocessors, agreed to abandon its own, competing architecture, and it undertook to manufacture x86 chips as a second source of supply. Assured that it would not be dependent upon a monopoly supplier of x86 chips, IBM introduced the PC in August 1981, and its sales exploded.

84. Although an arbitrator later found that "AMD's sponsorship helped propel Intel from the chorus line of semiconductor companies into instant stardom," Intel soon set out to torpedo the 1982 AMD-Intel Technology Exchange Agreement (the "Agreement") by which each would serve as a second source for products developed by the other. For example, the Agreement required Intel to send AMD timely updates of its second generation 80286 chip. Instead, in a "deliberate[]" effort "to shackle AMD progress," Intel sent AMD information "deliberately incomplete, deliberately indecipherable and deliberately unusable by AMD engineers." The conduct was, in the arbitrator's words, "inexcusable and unworthy." And it was not isolated. Intel elsewhere tried to "sabotage" AMD products, engaged in "corporate extortion" and demonstrated a near-malevolent determination "to use all of its economic force and power on a smaller competitor to have its way."

85. In another underhanded effort to stifle AMD's business, Intel decided in 1984 that it would become the sole source for the promising 80386 microprocessor, notwithstanding the Agreement. To fully realize its objective, Intel engaged in an elaborate and insidious scheme to mislead AMD (and the public) into erroneously believing that AMD would be a second source, thereby keeping AMD in the Intel "competitive camp" for years. This duplicitous strategy served a broader purpose than simply preventing AMD from competing with Intel. Customers' perception that AMD would continue to serve as Intel's authorized second source was essential to Intel's aim of entrenching the x86 family of microprocessors as the industry standard (as it had been essential to IBM's original introduction of the PC). Intel was well aware that if computer manufacturers knew Intel intended to sole source its 32-bit product, they would be motivated to select alternative products produced by companies offering second sources. Intel could not preserve the appearance that AMD would second source the 80386 microprocessor if it terminated the Agreement or otherwise disclosed its intent. Thus, Intel stalled negotiations over product exchanges, while at the same time allowing AMD to believe that it could ultimately obtain the 80386 chip. This injured competition by deterring and impeding serious competitive challenges to Intel and directly injured AMD by depriving it of the revenues and profits it would have earned from such a challenge.

86. Intel implemented this secret plan for the purpose of acquiring and maintaining an illegal monopoly in the x86 line of microprocessors, which it did by at least 1987. As was its plan, Intel's conduct drained AMD's resources, delayed AMD's ability to reverse-engineer or otherwise develop and manufacture competitive products, and deterred AMD from pursuing relationships with other firms. In so doing, Intel wrongfully secured the benefit of AMD's marketing skills and talent in support of the x86 line of microprocessors and related peripherals, and it secured the benefit of competitively-sensitive AMD information regarding its product development plans. When AMD petitioned to compel arbitration in 1987 for Intel's breach of contract and bad faith, the arbitrator took notice of Intel's anticompetitive design: "In fact, it is

no fantasy that Intel wanted to blunt AMD's effectiveness in the microprocessor marketplace, to effectively remove AMD as a competitor."

87. In 1992, after five years of litigation, the arbitrator awarded AMD more than \$10 million plus prejudgment interest and a permanent, nonexclusive and royalty-free license to any Intel intellectual property embodied in AMD's own 386 microprocessor, including the x86 instruction set. Confirmation of the award was upheld by the California Supreme Court two years later. In bringing the litigation to a close, the arbitrator hoped that by his decision, "the competition sure to follow will be beneficial to the parties through an expanded market with appropriate profit margins and to the consumer worldwide through lower prices." Not for the first time, and certainly not for the last, Intel's anticompetitive zeal was woefully underestimated.

B. AMD Moves from Second Source to Innovator

88. Shortly after confirmation of the award, AMD settled its outstanding disputes with Intel in a 1995 agreement that gave AMD a shared interest in the x86 instruction set but required it to develop its own architecture to implement those instructions. The settlement had the unintended benefit of forcing AMD to reinvent itself. Beginning in the late 1990s, AMD committed its resources to innovating, not just to be different, but rather to deliver solutions of greatest benefit to its customers. Going its own way proved beneficial: AMD's first x86 chip without Intel pin-compatibility, the Athlon microprocessor delivered in 1999, marked the first (but not last) time AMD leapfrogged Intel technologically and beat it to market with a new generation Windows microprocessor (and break the 1GHz speed barrier to boot).

89. But AMD's biggest breakthrough came four years later when it introduced an extension of x86 architecture that took Windows processors into the realm of 64-bit computing. Unlike Intel, which invested billions in its Itanium microprocessor and a new, uniquely 64-bit proprietary instruction set (which, because it was proprietary, would have been a game-ending development for AMD had it become the industry standard), AMD undertook to supplement the x86 instructions to accommodate 64-bit processing while allowing 32-bit software to be run as well. AMD's efforts culminated in April 2003 when it brought to market its Opteron

microprocessor for servers (the workhorse computers used by businesses to run corporate networks, e-commerce websites and other high-end, computationally-intense applications).

Opteron was the industry's first x86 backward-compatible, 64-bit chip. Six months later, AMD launched the Athlon64, a backward-compatible, 64-bit microprocessor for desktops and mobile computers.

90. The computing industry hailed AMD's introduction of 64-bit computing as an engineering triumph. Said *Infoworld* in its August 27, 2004, issue:

You just gotta love a Cinderella story. . . . AMD's rapid rise from startup to \$5 billion semiconductor powerhouse is, as Humphrey Bogart's English teacher once said, the stuff of which dreams are made. . . . In the process, AMD has become known as the company that kept Intel honest, the Linux of the semiconductor world. . . . After decades of aping Intel architectures, the AMD64 architecture, rooted in Opteron and Athlon 64 processors, has actually been imitated by Intel in the form of Nocona, Intel's 64-bit version of Xeon. In a stunning reversal of fortune, Intel was forced to build that chip because Opteron was invading a server market that the Intel Itanium was supposed to dominate.

In what represented a paradigm shift in the microprocessor world, Microsoft endorsed AMD's 64-bit instruction set and announced that Windows would support it. As noted by *Infoworld*, Intel then copied AMD's technology for its own 64-bit offerings – an event that poignantly marked AMD's technological emergence. Intel has yet to catch up.

91. AMD has extended its AMD64 technology to the balance of its microprocessor lineup, which now includes AMD Athlon 64, AMD Athlon 64 FX, Mobile AMD Athlon 64, AMD Sempron, and AMD Turion 64 products. Owing also to AMD's pioneering developments in dual-core processors and its introduction of an improved architecture that speeds up microprocessor communications with memory and input/output devices, AMD has seized technological leadership in the microprocessor industry. Its innovation has won for it over 70 technology leadership and industry awards and, in April 2005, the achievement of being named "Processor Company of 2005" at, to Intel's embarrassment, an Intel-sponsored industry awards show.

92. Tellingly, AMD's market share has not kept pace with its technical leadership. Intel's misconduct is the reason. Intel has unlawfully maintained the monopoly IBM bestowed on it and systematically excluded AMD from any meaningful opportunity to compete for market share by: preventing the companies that buy chips and build computers from freely deploying AMD processors; relegating AMD to the low-end of the market; preventing AMD from achieving the minimum scale necessary to become a full-fledged, competitive alternative to Intel; and erecting impediments to AMD's ability to increase its productive capacity for the next generation of AMD's state of the art microprocessors. Intel's exclusionary acts and the resulting impact on Plaintiffs and the Class members are the subject of the balance of this Complaint.

VI. THE X86 PROCESSOR INDUSTRY

A. Competitive Landscape

93. The x86 versions of Windows and Linux, the two operating systems that dominate the business and consumer computer worlds, have spawned a huge installed base of Windows- and Linux-compatible application programs that can only run the x86 instruction set. This has given Intel effective ownership of personal computing. Although other microprocessors are offered for sale, the non-x86 microprocessors are not reasonably interchangeable with x86 microprocessors because none can run the x86 Windows or Linux operating systems or the application software written for them.

94. The relevant product market is x86 microprocessors because a putative monopolist in this market would be able to raise the prices of x86 microprocessors above a competitive level without losing so many customers to other microprocessors as to make this increase unprofitable. While existing end-users can theoretically shift to other operating system platforms, high switching costs associated with replacing existing hardware and software make this impractical. Further, the number of new, first-time users who could choose a different operating-system platform is too small to prevent an x86 microprocessor monopolist from imposing a meaningful price increase for a non-transitory period of time. Computer manufacturers would also encounter high switching costs in moving from x86 processors to

other architectures, and no major computer maker has ever done it. In short, demand is not cross-elastic between x86 microprocessors and other microprocessors at the competitive level.

95. The relevant geographic market for x86 microprocessors is worldwide. Intel and AMD compete globally; PC platform architecture is the same from country to country; microprocessors can be easily and inexpensively shipped around the world, and frequently are; and the potential for arbitrage prevents chipmakers from pricing processors differently in one country than another. Indeed, in its July 1998 answer to a complaint by the Federal Trade Commission, Intel admitted that the relevant geographic market is the world.

96. Intel dominates the worldwide x86 Microprocessor Market. According to published reports, over the past several years it has consistently achieved more than a 90% market share as measured by revenue, while AMD's revenue share has remained at approximately 9%, with all other microprocessor manufacturers relegated to less than 1%. Intel has captured at least 80% of x86 microprocessor unit sales in seven of the last eight years. Since 1999, AMD's worldwide volume share has hovered at 15%, only once barely penetrating the 20% level. The following chart is illustrative:

x86 Worldwide CPU Unit Market Share

	1997	1998	1999	2000	2001	2002	2003	2004
Intel	85.0%	80.3%	82.2%	82.2%	78.7%	83.6%	82.8%	82.5%
AMD	7.3%	11.9%	13.6%	16.7%	20.2%	14.9%	15.5%	15.8%
Others	7.5%	7.9%	4.2%	1.1%	1.1%	1.4%	1.7%	1.7%

97. Intel's x86 family of microprocessors no longer faces any meaningful competition other than from AMD. National Semiconductor acquired Cyrix in 1997 but shuttered it less than two years later. At the beginning of this year only two other x86 chip makers remained, Via Technologies, Inc. and Transmeta Corporation, which together account for less than 2% of the market. Transmeta has since announced its intention to cease selling x86 microprocessors, and Via faces dim prospects of growing its market share to a sustaining level.

98. Intel is shielded from new competition by virtually insurmountable barriers to entry. A chip fabrication plant capable of efficiently mass-producing x86 microprocessors

carries a price tag of at least \$2.5 to \$3.0 billion. In addition, a new entrant needs the financial wherewithal to underwrite billions more in research and development costs to design a competing x86 microprocessor and overcome almost insurmountable intellectual property and knowledge barriers.

B. Customers for x86 Microprocessors

99. Annual worldwide consumption of x86 microprocessors stands at just over 200 million units per year and is expected to grow fifty percent by the end of the decade. Relatively few microprocessors are sold for server and workstation applications (8.75 million in 2004), but these command the highest prices. Most x86 microprocessors are used in desktop PCs and mobile PCs, with desktops currently outnumbering mobile PCs by a margin of three to one. Of the total worldwide production of computers powered by x86 microprocessors, 32% are sold to U.S. consumers. U.S. sales of AMD-powered computers account for 29% of AMD's production.

100. The majority of x86 microprocessors are sold to a handful of large OEMs (original equipment manufacturers), highly visible companies recognized throughout the world as the leading computer makers. Regarded by the industry as "Tier One" OEMs over most product categories are: Hewlett-Packard ("HP"), which now owns Compaq Computer; Dell, Inc.; IBM, which as of May 1, 2005, sold its PC (but not server) business to Lenovo; Gateway/eMachines; and Fujitsu/Fujitsu Siemens, a Europe-based joint venture. Toshiba, Acer, NEC and Sony are also commonly viewed as Tier One OEMs in the mobile PC segment of the PC market. HP and Dell are the dominant players, collectively accounting for over 30% of worldwide desktop and mobile PC sales, and almost 60% of worldwide server sales. Both are U.S.-based companies, as are IBM and Gateway/eMachines, and all but Gateway have U.S. manufacturing operations (as does Sony, which operates a North American production facility in San Diego).

101. Worldwide, Tier One OEMs account for almost 80% of servers and workstations (specialty high-powered desktops), more than 40% of worldwide desktop PCs, and over 80% of

worldwide mobile PCs. According to industry publications, unit market shares in 2004 among the Tier One OEMs were as follows:

OEM Market Shares – 2004

Company	Server/WS	Desktop	Mobile
Hewlett-Packard	29.86%	.69%	.23%
IBM/Lenovo	28.34%	16.18%	17.27%
Fujitsu/Siemens	3.70%	2.83%	6.88%
Acer	0.81%	1.85%	8.53%
Toshiba	0.31%	0.05%	12.73%
NEC	2.06%	2.02%	4.50%
Sony	—	0.76%	4.23%
Gateway/eMachines	0.16%	2.48%	1.45%
Total	79.70%	43.55%	81.02%

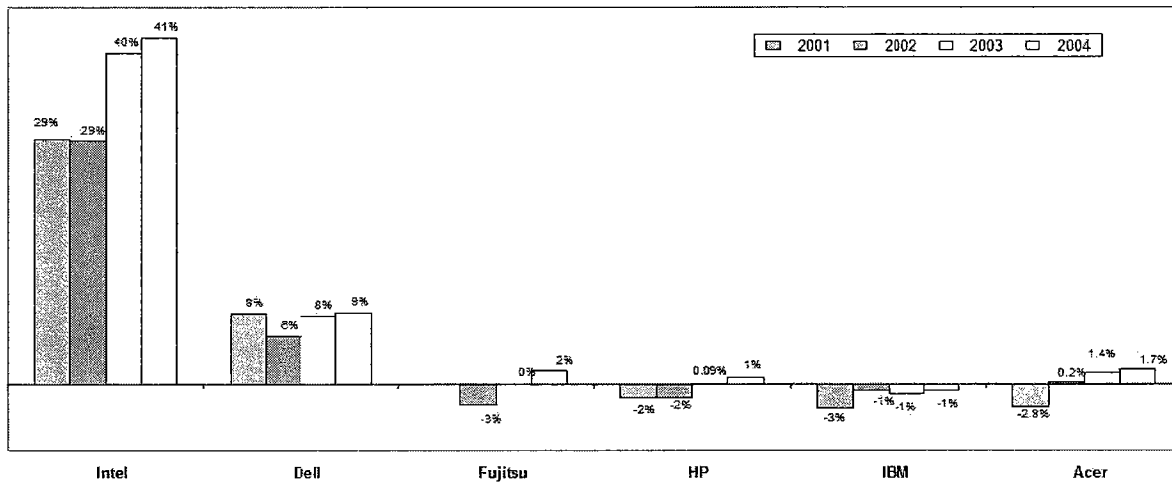
102. The balance of x86 production is sold to smaller system builders and independent distributors. The latter sell to smaller OEMs, regional computer assemblers, value-added resellers and other, smaller distributors. Currently, distributors account for over half of AMD's sales.

103. OEMs have adopted a variety of business models, including sales directly to customers through web-based e-commerce, sales through company-employed sales staffs (who target IT professionals and Fortune 1000 companies) and sales through a network of independent distributors (who focus on smaller business customers). With the exception of Dell, which markets to consumers only directly (mostly over the internet), most OEMs also sell through retail chains. Intel, AMD and Via compete not only to have OEMs incorporate their microprocessors into their retail platforms but also to convince retailers to allocate shelf-space so that the platforms containing their respective microprocessors can be purchased in the retailers' stores.

104. Through its economic muscle and relentless marketing – principally its “*Intel Inside*” and “*Centrino*” programs, which financially reward OEMs for branding their PCs as

Intel machines – Intel has transformed the OEM world. Once innovative companies themselves, the OEMs have largely become undifferentiated distributors of the Intel platform, offering “*Intel Inside*” and “*Centrino*” computers largely indistinguishable from those of their rivals. As their products have become commoditized, the Tier One OEMs operate on small or negative margins, and, as shown in the following chart, the overwhelming portion of PC profits flow to Intel.

Operating Margins 2001-04 – Intel vs. OEMs



105. This profit drain has left OEMs and others in the distribution chain in a quarter-to-quarter struggle to eke out even a modest return on their assets, thereby making them continually susceptible to Intel’s economic coercion, which is described next.

VII. INTEL’S UNLAWFUL PRACTICES

106. Intel has maintained its x86 microprocessor monopoly by deploying a host of financial and other exclusionary business strategies that in effect limit its customers’ ability and/or incentive to deal with AMD or other competitors. Although differing from customer to customer and segment to segment, the Intel arsenal includes: direct payments in return for exclusivity and near-exclusivity; discriminatory rebates, discounts and subsidies conditioned on customer “loyalty” that have the practical and intended effect of creating exclusive or near-exclusive dealing arrangements; threats of economic retaliation against those who give, or even contemplate giving, too much of their business to Intel’s competitors, or who refuse to limit their business with Intel’s competitors to Intel-approved models, brands, lines and/or sectors, or who

cooperate too closely with promotion of competitors' processors; and misuse of industry standards-setting processes so as to disadvantage competitors' products in the marketplace.

107. Intel's misconduct is global. It has targeted both U.S. and offshore customers at all levels to prevent AMD and others from building market share anywhere, with the goal of keeping competitors small and keeping Intel's customers dependent on Intel for very substantial amounts of product. In this way, OEMs remain vulnerable to continual threats of Intel retaliation, Intel's competitors remain capacity-constrained, the OEMs remain Intel-dependent, and Intel thereby perpetuates its economic hold over them, allowing it to continue to demand that customers curtail their dealings with Intel's competitors. And the cycle repeats itself: by unlawfully exploiting its existing market share, Intel impedes competitive growth of its rivals, thereby laying the foundation for the next round of foreclosing actions with the effect that competitors' ability to benefit from their current technological advances is curtailed to the harm of potential customers and consumers.

108. The following is not intended as an exhaustive catalog of Intel's misconduct or a complete list of its unlawful acts but rather as examples of the types of improper exclusionary practices that Intel has employed.

A. Practices Directed At OEMs

1. Exclusive and Near-Exclusive Deals

109. **Dell.** In its history, Dell has not purchased a single AMD x86 microprocessor despite acknowledging Intel shortcomings and customer clamor for AMD solutions, principally in the server sector. As Dell's President and CEO, Kevin Rollins, said publicly last February:

Whenever one of our partners slips on either the economics or technology, that causes us great concern. . . . For a while, Intel admittedly slipped technologically and AMD had made a step forward. We were seeing that in customer response and requests.

110. Nonetheless, Dell has been and remains Intel-exclusive. According to industry reports, Intel has bought Dell's exclusivity with outright payments and favorable discriminatory pricing and service. In discussions about buying from AMD, Dell executives have frankly

conceded that they must financially account for Intel retribution in negotiating pricing from AMD.

111. **Sony.** With the introduction of its Athlon microprocessor in 1999, AMD began to make notable inroads into Intel's sales to major Japanese OEMs, which export PCs internationally, including into the U.S. By the end of 2002, AMD had achieved an overall Japanese unit market share of approximately 22%. To reverse the erosion of its business, in 2003 Intel paid Sony multimillion dollar sums, disguised as discounts and promotional support, in exchange for absolute microprocessor exclusivity. Sony abruptly cancelled an AMD Mobile Athlon notebook model. Soon thereafter, it cancelled plans to release AMD Athlon desktop and mobile PCs. As a result, AMD's share of Sony's business dropped from 23% in 2002 to 8% in 2003, and then to 0%, where it remains today. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Sony.

112. **Toshiba.** Like Sony, Toshiba was once a significant AMD customer, but also like Sony, Toshiba received a very substantial payment from Intel in 2001 not to use AMD processors. Toshiba thereupon dropped AMD. Its executives agreed that Intel's financial inducements amounted to "cocaine," but said they were hooked because reengaging with AMD would jeopardize Intel market development funds estimated to be worth \$25-30 million per quarter. Toshiba made clear to AMD that the tens of millions of dollars of additional marketing support was provided by Intel on the explicit condition that Toshiba could not use AMD microprocessors. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Toshiba.

113. **NEC.** AMD also enjoyed early success with NEC, capturing nearly 40% of its microprocessor purchases for desktop and mobile PCs in the first quarter of 2002. In May 2002, Intel agreed to pay NEC more than 300 million yen per quarter in exchange for caps on NEC's purchases from AMD. The caps assured Intel at least 90% of NEC's business in Japan, and they established an overall worldwide quota on NEC's AMD dealings. The impact was immediate. While AMD had maintained an 84% share of NEC's Japanese consumer desktop business in the

third quarter of 2002, AMD's share quickly plummeted after the payments to virtually zero in the first quarter of 2003. NEC has made clear to AMD that AMD's Japanese share must stay in the single digits pursuant to NEC's agreement with Intel. Worldwide, AMD's share dipped from nearly 40% to around 15%, where it stands today. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to NEC.

114. **Fujitsu.** In the summer of 2002, Fujitsu informed AMD that Intel had pressured Fujitsu to remove Fujitsu's AMD-powered desktop models from Fujitsu's website. Fujitsu complied by making any potential AMD-buyer click past Intel products to get to the AMD offerings. Then, in early 2003, Intel moved to lock up an even greater share of Fujitsu's business. Intel offered an undisclosed package of financial incentives in return for Fujitsu's agreement to restrict its dealings with AMD. Fujitsu's catalog currently limits AMD to a single notebook product. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Fujitsu.

115. **Hitachi.** According to the JFTC, Intel has also purchased an exclusive-dealing arrangement with Hitachi, which had been a substantial AMD customer. The agreement caused AMD's Hitachi business to fall precipitously. For example, during the first part of 2002, AMD was shipping 50,000 Athlon microprocessors to Hitachi per quarter. But by the middle of the year, AMD sold no microprocessors to Hitachi at all. In proceedings brought by the JFTC, Intel has accepted the JFTC charges of misconduct with respect to Hitachi.

116. **Gateway/eMachines.** From 2001 to 2004, Gateway exclusively used Intel chips. In 2001 former Gateway CEO, Ted Waitt, explained to an AMD executive that Intel offered him large sums not to deal with AMD, which he could not refuse: "I have to find a way back to profitability. If by dropping you, I become profitable, that is what I will do." Shortly thereafter, Gateway stopped purchasing from AMD and issued a press release announcing its Intel exclusivity. The announcement came within weeks of similar public announcements of Intel exclusivity by both IBM and Micron.

117. **Supermicro.** Intel's exclusive dealing also extends to small, specialty OEMs of which Supermicro is a good example. Supermicro, the preeminent system assembler for servers and other high-end computers, historically has followed the Dell strategy of never buying from AMD. This arrangement foreclosed AMD from a large part of the approximately one fifth of the server sector not controlled by the Tier One OEMs. Following two years of negotiation, Supermicro finally agreed last year to begin developing an Opteron-powered server, but it so feared Intel retaliation that it secretly moved the AMD development to quarters behind its main manufacturing facility. Further, it forbade AMD from publicizing the product or beginning any marketing prior to its actual release. When Supermicro finally broke away from years of Intel exclusivity in April 2005, it restricted distribution of its newly-released Opteron-powered product to only sixty of its customers and promoted it with a glossy, upscale brochure devoid of its name and labeled "secret and confidential."

2. Product-Line, Channel or Geographic Restrictions

118. Intel has also bought more exclusivity from OEMs in order to exclude AMD from the most profitable lines or from channels of distribution. These product lines and distribution channels are best tailored to take advantage of AMD's price/performance advantage over Intel. For example, in exchange for discriminatory discounts, subsidies or payments, Intel has largely foreclosed AMD from the lucrative commercial desktop sector. Intel has focused on the major OEMs because when IT executives from Fortune 1000 companies purchase desktop computers, they look for a strong brand on the box – Dell, IBM or HP. Knowing this, Intel has relentlessly fought to block the introduction of an AMD-powered commercial desktop by the major OEMs that have not ceded total exclusivity to Intel. What follows are only representative examples of Intel misconduct.

119. **HP.** In 2002, when AMD set out to earn a place in HP's commercial desktop product roadmap, HP demanded a \$25 million quarterly fund to compensate it for Intel's expected retaliation. Eager to break into the commercial market and to earn a place in HP's successful "Evo" product line, AMD agreed instead to provide HP with the first million

microprocessors for free in an effort to overcome Intel's financial hold over HP. On the eve of the launch, HP disclosed its plan to Intel, which told HP it considered AMD's entry into HP's commercial line a "Richter 10" event. Intel immediately pressured HP into (1) withdrawing the AMD offering from its premier "Evo" brand and (2) withholding the AMD-powered computer from HP's network of independent value-added resellers, HP's principal point of access to small business users for whom the PC was designed in the first place. Intel went so far as to pressure HP's senior management to consider firing the HP executive who spearheaded the AMD commercial desktop proposal. As a result of Intel's coercion, the HP-AMD desktop offering was dead on arrival. HP ended up taking only 160,000 of the million microprocessors AMD offered for free. As of today, HP's AMD-equipped commercial desktops remain channel-restricted, and AMD's share of this business remains insignificant.

120. Intel also purchased HP's exclusivity for its most popular notebook line. HP captured 15% of the U.S. retail market last Christmas with an Intel-powered 14.1-inch display notebook (the DV 1000) with a popular power saving feature called Quick Play. When AMD sought to convince HP to carry a similar AMD-powered notebook, HP declined. It explained that Intel had paid between \$3 and \$4 million to lock up this product line for at least one year.

121. **Gateway.** After Gateway's 2004 merger with eMachines, AMD attempted to revive the relationship it had enjoyed with Gateway until 2001 but experienced extremely limited success. While Gateway built one AMD-powered desktop model at the request of Circuit City, AMD remains locked out entirely of Gateway's direct internet sales, commercial offerings and server line. According to Gateway executives, Gateway has paid a high price for even its limited AMD dealings. They claim that Intel has beaten them into "guacamole" in retaliation.

122. **IBM.** AMD and IBM began negotiations in August 2000 over a proposed commercial PC business partnership. After seven months and with a deal nearing completion, Intel approached IBM with an incentive-based program under which Intel would become IBM's "preferred supplier" for processors in commercial products. "Preferred" meant exclusive. IBM accepted Intel's proposal and terminated discussions with AMD. In return for that exclusivity,

Intel paid IBM “millions of dollars in market development funds,” according to IBM executive Ed Thum.

123. Intel also acted to thwart AMD efforts to partner with IBM on servers. Although IBM joined AMD as a launch partner when it introduced its Opteron 64-bit server chip in April 2003 – signaling to the industry and IT professionals its confidence in the product – Intel soon dissuaded IBM from aggressively marketing Opteron servers. After investing heavily in its design, IBM consigned its one Opteron computer model to a single target market segment (High Performance and Technical Computing). This was done, according to an industry report that was confirmed by an IBM executive, because Intel paid IBM to shelve further Opteron development. IBM also took Intel money in 2004 to scrap plans for a multiple-microprocessor Opteron server it had already designed and previewed with customers.

124. Intel has also purchased IBM exclusivity in its “ThinkCentre” line of commercial desktops. When AMD pressed IBM to add an Athlon 64 model to its “ThinkCentre” roadmap, IBM executives explained that the move would cost them important Intel subsidies, and they declined.

125. **Fujitsu.** In 2002, Fujitsu and AMD formed an alliance to develop a low-power commercial notebook (FMV Lifebook MG Series) scheduled to go to market in the first quarter of 2003, on which AMD spent over 20 million yen designing. Shortly before the launch, Fujitsu told AMD that Intel would not allow it to launch an AMD-powered commercial notebook, and the project died. To this day, AMD remains locked out of Fujitsu’s commercial notebook lines. Intel’s exclusionary conduct with Fujitsu extends beyond commercial notebooks. For example, Intel purchased total exclusivity for Fujitsu’s FM-Biblo NB consumer notebook line. When AMD tried to break Intel’s lock on Fujitsu notebooks by offering to match any Intel discount, Fujitsu made clear that there was no price AMD could pay, because Intel simply would not allow it. To this day, AMD remains locked out of Fujitsu’s Biblo line.

126. **Fujitsu-Siemens.** Fujitsu-Siemens, a European joint-venture, was once a mainstay for AMD’s desktop business, with AMD chips powering over 30% of Fujitsu-Siemens’

offerings in the consumer sector. In early 2003, Intel offered Fujitsu-Siemens a “special discount” on Celeron processors which Fujitsu-Siemens accepted in exchange for hiding its AMD computers on its website and removing all references to commercial AMD-powered products in its retail catalog.

127. Intel also convinced Fujitsu-Siemens to impose market restrictions on its AMD-powered PCs. Its parent, Fujitsu, sells an AMD-equipped Lifebook S2010, a commercial notebook, but only in the U.S. and Japan. Fujitsu-Siemens has declined AMD’s plea to offer the machine in the European market. Similarly, Fujitsu-Siemens designed the FMC Lifebook MG Series notebook for the European market, but it refused to offer that computer in Asia or North America. Finally, although Fujitsu-Siemens produces an AMD-equipped commercial desktop, the Scenico, it refuses to advertise it on its website, offering it instead only as a build-to-order product. Having invested significantly to bring these computers to market, Fujitsu-Siemens has offered no explanation for its refusal to exploit them worldwide. AMD’s unit share of Fujitsu-Siemens’ business recently fell below 30% for the first time in four years.

128. **NEC.** Intel was forced to relax its hold on NEC’s business when a long-time NEC customer, Honda Motor Company, demanded that NEC supply it with servers powered by AMD’s Opteron microprocessors. After underwriting the considerable expense of designing and manufacturing an Opteron server for Honda, NEC then inexplicably refused to market the product to any of its other customers.

3. Exclusionary Rebates

129. Intel has also imposed on OEMs a system of first-dollar rebates that have the practical and intended effect of creating exclusive or near-exclusive dealing arrangements and artificially foreclosing AMD and others from competing for a meaningful share of the market. In general, the rebate schemes operate as follows: quarterly, Intel unilaterally establishes for each of its customers a target level of purchases of Intel microprocessors. If the customer achieves the target, it is entitled to a rebate on all of the quarter’s purchases of all microprocessors – back to the very first one – generally in the neighborhood of 8-10% of the price paid. Intel provides the

rebate in cash at the quarter's close. OEMs operate on razor-thin margins, so qualifying for an Intel rebate frequently means the difference between reporting a profit or a loss in the coming – and closely watched – quarterly earnings.

130. In contrast to “volume discounts” that sellers offer on a graduated and nondiscriminatory basis to reflect cost efficiencies that accrue when dealing in larger quantities, Intel's is a system of “penetration” or “loyalty” rebates designed to exclude rivals from a substantial portion of the market. Intel intentionally sets a rebate trigger at a level of purchases it knows to constitute a dominant percentage of a customer's needs. Intel is able to develop discriminatory, customer-by-customer unit or dollar targets that lock that percentage (without ever referencing it), because industry publications accurately forecast and track anticipated sales and because OEM market shares – which industry publications also report weekly, monthly and quarterly – do not change significantly quarter to quarter.

131. Intel's retroactive discounts can operate to price microprocessors so low that Intel's rivals are put at a competitive disadvantage they cannot overcome. Consider an OEM that anticipates purchasing 100 microprocessors that both Intel and AMD sell for \$100 each. Intel knows that because of its prior model introductions, the customer will have to buy 60 from Intel. The customer considers buying its expected balance for its new models from AMD, but Intel offers it a rebate that will entitle it to a 10% retroactive discount if, but only if, it purchases 90 units or more. If the customer buys 30 of the 40 additional units from Intel to qualify for the rebate, its incremental cost for the 30 will be \$3,000 (30 units at \$100/unit) less the 10% rebate going back to the first unit it purchased, which amounts to \$900 (90 units at \$10/unit), for a total of \$2,100.

132. AMD can only capture the 30 units if it offers a price that makes the customer indifferent between getting the Intel rebate and getting an overall equivalent deal on AMD microprocessors. Thus, for the 30 units that are up for grabs, AMD would have to lower its price to \$70 per unit (because 30 units at \$70/unit equals the \$2,100 net cost for buying from Intel). In effect, the rebate forces AMD to charge \$20 less than the \$90 discounted Intel price if it attempts

to get any business from the customer at all. That is because it is selling the customer only 30 units, over which it has to spread a \$900 discount while Intel can spread it out over 90. At the end of the day, this creates a serious competitive disadvantage for AMD. As shown in the example, AMD is forced to discount its price three times as much as Intel just to match the Intel discount, not because its processors are inferior – far from it – but because Intel has assured for itself, by its past predatory practices, a significant base of assured demand that enables Intel to inexpensively spread its first-dollar discount. Importantly, this new base of demand – driven by the OEM's purchasing – will enable Intel to repeat its exclusionary practice when the next line of models is unveiled.

133. At least in the short run, most if not all major OEMs must engage significantly with Intel: (1) because Intel's competitors are too small to service all such OEMs' needs while satisfying other customer demand; (2) because to meet customer expectations, OEMs must assure commercial computer buyers that specifications, including the microprocessor, will remain unchanged during the product's lifecycle; and (3) because Intel has encouraged end-users to specify that processors be of the same family among similar computers in one installation, as this is perceived to increase reliability (although technically this is not the case). Intel uses its retroactive discounts to make its large, captive market share self-perpetuating. In any one quarter, no Intel rival can economically match Intel's retroactive rebate because it competes for too small a share of the customer's volume over which to spread the dollars necessary to equal the customer's total Intel cost savings. As a result, the rival loses the business and goes into the next selling cycle with Intel imbedded in additional customer products over which Intel can spread its rebates. This serves again to artificially constrain rivals' opportunity to match Intel's ensuing round of retroactive discounts. Intel's intertemporal leveraging of its market share effectively forecloses competitors from ever having a fair opportunity to compete.

134. Intel exacts a severe penalty from OEMs that fail to meet their targets. For example, during the fourth quarter of 2004, AMD succeeded in getting on the HP retail roadmap for mobile computers, and its products sold very well, helping AMD capture nearly 60% of HP's

U.S. retail sales for the quarter. Intel responded by withholding HP's fourth quarter rebate check and refusing to waive HP's failure to achieve its targeted rebate goal. Instead, Intel "allowed" HP to make up the shortfall in succeeding quarters when HP promised Intel at least 90% of HP's mainstream retail business.

135. Intel has deployed a variety of variants of this basic rebate scheme. In the case of one European OEM, for example, Intel imposes the additional condition that the customer purchase target volumes of specific processors, generally microprocessors against which AMD's products compete particularly well. In the case of another, Intel offered as an inducement discounted microprocessors rather than rebates. In the case of the European division of one United States OEM, Intel has imposed a target of between 70-90% of the customer's requirements. Rather than qualifying the customer for a cash rebate, however, meeting the target entitles the OEM to purchase designated processors at up to 20% below "normal" cost, thereby enabling the customer to obtain favorable pricing on bundled products (*e.g.*, a Centrino-series processor and chipset) and/or to receive product offerings not available to competitors.

136. Intel makes similar offers to smaller OEMs, but they are generally unwritten, and Intel leaves undefined the consequences of failing to meet a target. Thus, a customer falls short at its peril, knowing only that it may lose its account with Intel and have to source future products from Intel distributors, which is both more expensive and provides less security of supply than direct purchase.

137. All of Intel's rebate schemes are discriminatory and market-foreclosing. If the customer chooses to purchase any significant quantity of microprocessors from an Intel competitor, it will not qualify for its Intel rebate, and the price will be higher on all the Intel processors it buys across the board. By tailoring targets to each customer's size and anticipated volume, Intel locks up significant percentages of the market much more effectively and at a lesser cost to itself – but to a greater harm to its rivals and ultimately consumers – as compared to offering nondiscriminatory rebates for comparable purchase levels to all customers.

138. Intel's use of retroactive rebates leads, in some cases, to below-cost pricing on incremental sales. The following example shows why a customer's incremental cost of purchasing from Intel those units that both Intel and a rival could supply can be zero or even negative, a price the rival cannot match. Consider an OEM which has purchased 90 units of a microprocessor at \$100 per unit under an Intel rebate scheme that entitles it to a 10% first-dollar discount but only after it purchases more than 90 units. Its cost for the 90 processors is \$9,000. The OEM is now considering a purchase of 10 more units. If it makes the additional purchase from Intel, the OEM will meet the expenditure condition and will qualify for the 10% per unit discount on all units. Accordingly, the total spent will remain \$9,000. The incremental cost of the 10 additional microprocessors, as well as Intel's incremental revenue, will be zero (the \$1,000 additionally spent, less the \$1,000 thereby saved). In other words, this scheme leads to incremental units being offered to the OEMs for nothing, leaving rivals hopelessly boxed out.

139. Importantly, even if Intel were to earn some incremental revenue on the marginal units, these additional revenues could be below the incremental cost of their production. As a result, Intel's additional profit on the sale would be negative but for the fact that it had a long-run exclusionary effect on its competitors. (Obviously, if Intel earns no revenues on its additional sales, it has to be forgoing profits.) As this analysis shows, some of Intel's discriminatory, retroactive rebates amount to unlawful, predatory, below-cost pricing.

140. Even where Intel's prices are above cost on the incremental volumes and despite its retroactive rebate schemes, these rebates enable Intel to lower prices selectively in the contested market segment while maintaining higher prices in its captive market. For example, Intel can offer rebates that are granted across the entire volume of sales but that are triggered only if the OEM increases its purchases beyond the portion of its requirements that is captive to Intel. Indeed, Intel can even price above the "monopoly" level for the volumes below the benchmark and offer huge discounts for additional purchases, knowing full well that the OEM will not buy less than the benchmark and, instead, will source the overwhelming share of its

purchases from Intel, thereby “qualifying” for the putative rebate while at the same time denying Intel’s competitors any reasonable volume opportunity.

141. Intel’s use of retroactive rebates to limit its rivals to a small share of an OEM’s business heightens the obstacle to inducing the OEM to launch platforms using non-Intel x86 microprocessors. OEMs incur substantial expense in designing and engineering a new computer and make the investment only if they foresee a substantial chance of selling a sufficient volume to recoup it. Intel’s rebate and other business strategies effectively cap the volumes of non-Intel-powered products that an OEM can sell. Hence, Intel’s practices exacerbate normal impediments to entry and expansion.

4. Threats of Retaliation

142. Beyond exclusive dealing, product and channel restrictions and exclusionary rebates, Intel has resorted to old-fashioned threats, intimidation and “knee-capping” to deter OEMs from dealing with Intel’s rivals. Intel has a variety of pressure points at its disposal: it can unilaterally reduce or withdraw a discount, rebate or subsidy; it can impose a discriminatory price increase on a disfavored customer, extend a price cut to that customer’s competitor, or force retailers into dropping the customer’s computers and buying from its competitor instead; or it can delay or dispute an allowance or rebate – all of which can turn a profitable quarter for an OEM into an unprofitable one. Other pressure points on accounts Intel deems disloyal include threatening to delay or curtail supplies of scarce processors or essential technical information. Examples abound.

143. As Gateway executives have said, Intel’s threats beat them into “guacamole.” But Gateway is not alone. Prior to its merger with HP, Compaq Computer received Intel threats every time it engaged with AMD. For example, Compaq’s CEO, Michael Capellas, disclosed in late 2000 that because of the volume of business he had given to AMD, Intel withheld delivery of server chips that Compaq desperately needed. Reporting that he “had a gun” to his head, Capellas informed an AMD executive that he had to stop buying AMD processors.

144. In 2002, Intel pointed its gun at NEC. Intel threatened to discontinue providing NEC with the technological roadmap of future Intel products if NEC did not convert its entire line of Value Star L computers to Intel microprocessors. Without that roadmap, NEC would have been at a distinct competitive disadvantage. Predictably, NEC succumbed and eliminated AMD from the Value Star L series in 2002 and 2003.

145. NEC's European subsidiary, NEC-CI, which operates NEC's European and non-Japanese Asian divisions, reported that Intel executives said they would "destroy" NEC-CI for engaging with AMD in the commercial desktop segment. Intel told NEC-CI's retailers that NEC-CI's AMD dealings could impair its ability to supply products to its customers, and when NEC-CI resisted the pressure, Intel imposed a discriminatory price increase.

146. AMD was engaged in discussions with IBM about introducing an Opteron "blade" server, when IBM suddenly announced that any such product it distributed could not bear an IBM logo. When pressed for an explanation, IBM reported that it could not appear overly supportive of AMD server products because it feared Intel retaliation.

5. Interference with AMD Product Launches

147. Key to gaining quick market acceptance of a new microprocessor is a chipmaker's ability to develop a lineup of reputable launch partners, consisting of OEMs prepared to roll out products featuring the chip, major customers who are willing to buy and embrace it, and other industry allies, such as major software vendors and infrastructure partners who can attest to its quality and reliability. Particularly for commercial and enterprise (*i.e.*, server-work station) purchasers, a successful and impressive launch is essential to generating confidence among the computer professionals who will be the potential audience for the new microprocessor.

148. Aware of the importance of product launches, Intel has done its utmost to undermine AMD's. Several examples are set forth below.

149. AMD's September 23, 2003, launch of Athlon64 was a watershed event for the company. Intel did its best to disrupt it. For example, Acer committed to support the AMD rollout by making a senior executive available for a videotaped endorsement and by timing the

introduction of two computers, a desktop and a notebook, to coincide with AMD events planned for Cannes, San Francisco and Taiwan. Days before the event, Intel CEO, Craig Barrett, visited Acer's Chairman, CEO and President in Taiwan, expressed to him Intel's "concern" and said Acer would suffer "severe consequences" if it publicly supported AMD's launch. The Barrett visit coincided with an unexplained delay by Intel in providing \$15-20 million in market development funds owed to Acer. As a result, Acer withdrew from the launch in the U.S. and Taiwan, pulled its promotional materials, banned AMD's use of the video, and delayed the announcement of its Athlon64-powered computers. Acer's President subsequently reported that the only thing different about Intel's threats was the messenger – they were "usually done by lower ranking managers," not Intel's CEO.

150. HP also withdrew precipitously from the Athlon64 launch after committing to participate. HP had agreed to support the launch by producing a promotional video and by sending senior executives to all three launch sites. Just before launch, however, HP manager John Romano pulled the video and announced that HP would only be sending a junior manager, and then only to Europe.

151. Other AMD customers and channel partners reporting Intel coercion to withdraw from the Athlon64 launch were Lenovo, NEC-CI and Best Buy.

152. Intel also disrupted AMD's launch of its Opteron server chip, which was rolled out on April 22, 2003, with few in attendance and little industry support. A computer industry journal reported Intel's fingerprints: "They all [vendors] told me that prior to the launch, they received a phone call from Intel. Intel asked if they were going to the launch. If they replied yes, the Intel rep asked them if it was 'important to them to go,' or 'if they really wanted to go.' Pressing the vendors, I got the same response, 'Intel is too smart to threaten us directly, but it was quite clear from that phone call that we would be risking our various kickback money if we went.'"

153. Other companies that reported being intimidated from participating in the Opteron launch were MSI, Atipa, Solecron and Fujitsu-Siemens. Indeed, Intel representatives told

Fujitsu-Siemens' executives in the weeks preceding the Opteron launch that if they attended, they would be the only Tier One OEM showing its support as all of the others would back out. With the exception of IBM, Intel was right.

154. These are not isolated examples but rather illustrations of Intel's relentless campaign to undermine marketing efforts by its one remaining competitor. For example, IBM pulled its AMD-powered computers from the 2004 Palisades eServer and PC Show, citing a contractual agreement with Intel said to prohibit it from endorsing those competitive products. And at the 2004 Super Computing Show, an annual conference devoted to high performance computing, Intel offered two other AMD customers money to remove AMD systems from their booths. At CeBit, Intel threatened to pull a half million dollars of support from Fujitsu-Siemens for displaying AMD products, which were removed.

6. Product Bundling

155. Intel also uses product bundling as an exclusionary weapon in many ways. Intel's most common deployment is in bidding for a new OEM platform: it bundles microprocessors with free (or heavily discounted) chipsets or motherboards, often offered in amounts exceeding the OEM's requirements for the new platform. (The excess, of course, is only compatible with Intel processors, thereby providing the OEM a strong inducement to go with Intel rather than an Intel competitor on uncommitted models.) AMD does not sell chipsets or motherboards; they are provided by independent suppliers such as ATI, nVidia and Via, which incur their own costs and control their own pricing. Hence, to match Intel's bundled microprocessor-chipsets-motherboards offer, AMD must extend a discount on its microprocessors that will not only match any Intel discount on the microprocessors but also will compensate the OEM for the savings it will lose on chipset and motherboard purchases. The additional compensation AMD is forced to provide through a discount on the sale of microprocessors alone makes AMD's sale of microprocessors potentially unprofitable. It also enables Intel to avoid competing with AMD directly on microprocessor price and quality by imposing disproportionate burdens on AMD that

are wholly unrelated to AMD's product quality which, as has been demonstrated, is frequently superior to that of Intel's.

156. As retaliation for dealing with AMD, Intel has also used chipset pricing as a bludgeon. For example, Acer committed to launch the AMD Athlon XP in 2003. Acer executives worldwide had worked with AMD to bring the product to market post-launch. But on the eve of the launch, Acer management in Taiwan pulled the plug. AMD learned from Acer executives that Intel had threatened to raise chipset prices by \$10 on all Intel-based Acer systems if Acer awarded *any* of its processor business to AMD outside of Europe.

157. Intel's dealings with OEMs are unlawfully exclusionary, have no pro-competitive justification, and are intended to maintain its monopoly.

B. Practices Directed At Distributors

158. Intel uses many of the same tactics it practices on OEMs to restrict distributors from carrying non-Intel processors or selling non-Intel products into markets it deems strategic. For example, Intel entered into an exclusive deal with Synnex, which is one of the largest United States distributors. Given Intel's 80% plus market share, there is no pro-competitive justification for this arrangement.

159. As with OEMs, Intel offers discounts and rebates to distributors on the condition that they not do business with Intel's competitors, either worldwide or in strategic sub-markets. For example, in December 2004, Ingram Micro, Intel's biggest distributor in China, suddenly cut off talks to distribute AMD chips. A high-ranking Ingram Micro official later reported to AMD that Ingram Micro had no choice because Intel proffered loyalty rebates that were too lucrative to pass up.

160. Intel also offers a panoply of special programs for distributors that carry Intel microprocessors exclusively: marketing bonuses, increased rebates, credit programs for new customers (credits that can be used for all products from Intel and any other suppliers), payment for normal freight charges, and special inventory assistance such as credits to offset inventory costs. When such more nuanced means of achieving exclusivity fail, Intel has simply bribed

distributors not to do business with AMD. For example, a high-ranking Tech Data executive turned down \$1 million to stop doing business with AMD, which caused the Intel representatives to ask, "How much would it take?"

161. Intel also offers retroactive rebates triggered when a distributor reaches a prescribed buying quota. Like the rebates offered to OEMs, the intent is to inflict economic punishment on those who do too much business with Intel's rivals. But unlike OEMs, distributors remain ignorant of the goals Intel has set for them or the precise consequences of failing to meet them. Intel does not share this information with them; they simply receive a check at the end of a quarter. As a result, every non-Intel chip they purchase is at their peril.

162. Finally, distributors that choose to do business with an Intel competitor have been conditioned to expect Intel retaliation. For example, when ASI, one of the largest computer hardware and software distributors, began distributing AMD processors, Intel demanded that it exclude AMD personnel from its ASI Technology Shows and its General Managers' meetings. Until recently, ASI refused master distributor status from AMD, despite the financial benefits attached, because it feared that such a public alignment with AMD would trigger Intel retaliation. When ASI finally accepted master distributor status in January 2005, Intel began reducing the level of market development funds ASI received.

163. Avnet, Inc., one of the world's largest computer equipment distributors and an avid AMD supporter, has also received its share of Intel intimidation. Thus, Avnet cited Intel as the reason it could not distribute AMD parts to the industrial sector. And when AMD launched its Opteron server chip, Intel made clear it would make it "painful" for Avnet were it to begin distributing that chip. When Avnet did so anyway, Intel threatened to cut it off. Another distributor got even worse treatment. In retaliation for Supercom's AMD dealings in Canada, Intel pressured Supercom's customers to switch to another distributor.

164. These are not the only distributors that Intel has attempted to coerce from doing business with AMD. Others include R.I.C. in Germany, Paradigit in the Netherlands, and Quote Components in the Netherlands.

165. Intel's dealings with distributors are unlawfully exclusionary, have no procompetitive justification, and are intended to maintain its monopoly.

C. Practices Directed At Retailers

166. In both the U.S. and internationally, approximately one fifth of desktop and notebook computers are purchased at retail stores. A handful of retailers dominate the PC market in the U.S. Best Buy and Circuit City are the largest. Other significant but smaller retailers are Walmart/Sams Club, Staples, Office Depot and Office Max.

167. Most PCs sold at retail are sold during four or five buying seasons that correspond to events on the calendar ("Dads and Grads," "Back to School," "Holiday," etc.), and retailers refresh their inventory for each. A chipmaker faces a two-step process to get its platform on shelves: first, it must convince one or more OEMs to build machines using its microprocessor at a suggested price point (called "getting on the roadmap"); and second, it must convince the retailer to stock and devote shelf space to these machines. Shelf space does not come for free. The major retailers demand market development funds ("MDF") in exchange. MDF can consist of cooperative advertising support, but more frequently it comprises a marketing-related opportunity that a chipmaker must buy for tens of thousands of dollars – e.g., space in a Sunday circular, an in-store display or an internet training opportunity with the chain's sales staff. The MDF required to secure shelf space can run as high as \$25 per box depending on the computer price point and how urgently the competing chipmakers want the shelf space.

168. Intel has historically enjoyed an advantage over competitors at retail because, using many of the strategies described above, it has had greater access to the OEMs' roadmaps and the ability to exert pressure to keep competitors out of retailers' product plans. Also, it has significantly greater financial resources with which to buy retail shelf space.

169. But to leverage those advantages, Intel has also made exclusive deals with many key retailers around the world. For example, until recently Office Depot declined to stock AMD-powered notebooks regardless of the amount of MDF AMD offered, citing its "premier" status with Intel that would be put at risk. Fry's is Fujitsu's only retailer in the United States.